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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,668	12/21/1999	JAMES A. KWEEDER	30-4874	3902

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Margaret S. Millikin
HONEYWELL INTERNATIONAL INC
15801 WOODS EDGE ROAD
COLONIAL HEIGHTS, VA 23834

EXAMINER

MADSEN, ROBERT A

ART UNIT PAPER NUMBER

1761

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/468,668

Applicant(s)

KWEEDER ET AL.

Examiner

Robert Madsen

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The Remarks filed May 23, 2005 have been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoogendonk (US 3083406) in view of Holland et al. (1995) and Hanke et al (US 5466281) and Otsuka et al. (US 3539326).
4. See the reasons stated in the Office Action mailed December 17, 2004.
5. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoogendonk (US 3083406) in view of Holland et al. (1995) and Hanke et al (US 5466281) and Otsuka et al. (US 3539326) as applied to claims 1-6 above, further in view of Frenken et al. (US 3988398)
6. See the reasons stated in the Office Action mailed December 17, 2004.
7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoogendonk (US 3083406) in view of Holland et al. (1995) and Hanke et al (US

5466281) and Otsuka et al. (US 3539326) as applied to claims 1-6 above, further in view of Bassetti et al. (US 5378259).

8. See the reasons stated in the Office Action mailed December 17, 2004..

9. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoogendonk (US 3083406) in view of Holland et al. (1995) and Hanke et al (US 5466281) and Otsuka et al. (US 3539326) as applied to claims 1-6 above, further in view of Stengel (US 3021207)

10. See the reasons stated in the Office Action mailed December 17, 2004.

Response to Arguments

11. Applicant's arguments filed May 23, 2005 have been fully considered but they are not persuasive.

12. Applicant contends that thixotropic fluids whose viscosity decreases with time at constant shear rate are not contemplated by claim 1 and that step d, in particular, recites that "essentially the entire liquid volume of the prill head is swept by said agitator".

13. With respect to the viscosity/shear rate limitations, as stated in the Office Action of December 17, 2004, Hoogendonk teaches thixotropic fluids and Holland et al. teach thixotropic materials are shear thinning and that shear-thinning materials have a decreasing viscosity with increasing shear rate. It is further noted that Hoogendonk

teaches "the shear stresses produced by the rolling movement of the rotary element causes the melt to remain sufficiently fluid" (Column 1, lines 60-66).

14. With respect to "essentially the entire liquid volume in said prill head is swept by the agitator", Hoogendonk also meets this limitation. Hoogendonk teaches a rotating prill head, or cup, and it is notoriously well known that the force provided by the rotation of a prill cup will move essentially the entire liquid volume, or melt, in the interior of the cup to the exterior spray openings. Hoogendonk also teaches a prilling cup wherein "the shear stresses produced by the rolling movement of the rotary element causes the melt to remain sufficiently fluid" and the openings do not become clogged. Thus, one would expect that essentially the entire liquid volume is swept by the agitator because Hoogendonk teaches (1) a rotating prill cup, (2) fluidity of the melt is maintained, (3) clogging of the openings is prevented and (4) prior to exiting the prill cup the liquid or melt within the cup must contact, or be swept by, the rotating agitator.

15. With respect to Applicant's assertion that Frenken teaches away from sweeping the entire liquid volume, for the reasons stated above in the two preceding paragraphs, Hoogendonk teaches sweeping the entire liquid volume to shear thin the mixture. The limitation "essentially the entire liquid volume in said prill head is swept by the agitator" does not limit the agitator's proximity to the cup wall.

16. Applicant suggests removing Otsuka et al. from the rejection because Otsuka is filled with references to how difficult it is to take the molten materials of Otsuka and process them using conventional prilling methods. Hoogendonk teaches prilling a NPK or ammonium nitrate-containing melt, but does not teach how one prepares the melt.

Art Unit: 1761

Otsuka is being relied on for teaching a method of making an NPK or ammonium nitrate-containing melt *prior to* a prilling step, and Otsuka et al. teach the method for the purpose of preventing clogging of the equipment during prilling (note Column 1, lines 15-56 in particular, as well as Column 7, line 19 to Column 8, line 34). Therefore, there is a reasonable expectation of success in the combination of the preparation of the melt of Otsuka et al. and the prilling of the melt of Hoogendonk since both references attempt to solve the same problem with the same fertilizer melt material: preventing clogging during prilling.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


18. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 1761

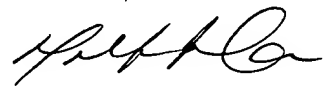
19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Madsen whose telephone number is (571) 272-1402. The examiner can normally be reached on 8:00AM-4:30PM M-F.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert Madsen 
Examiner
Art Unit 1761

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MILTON I. CANO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700